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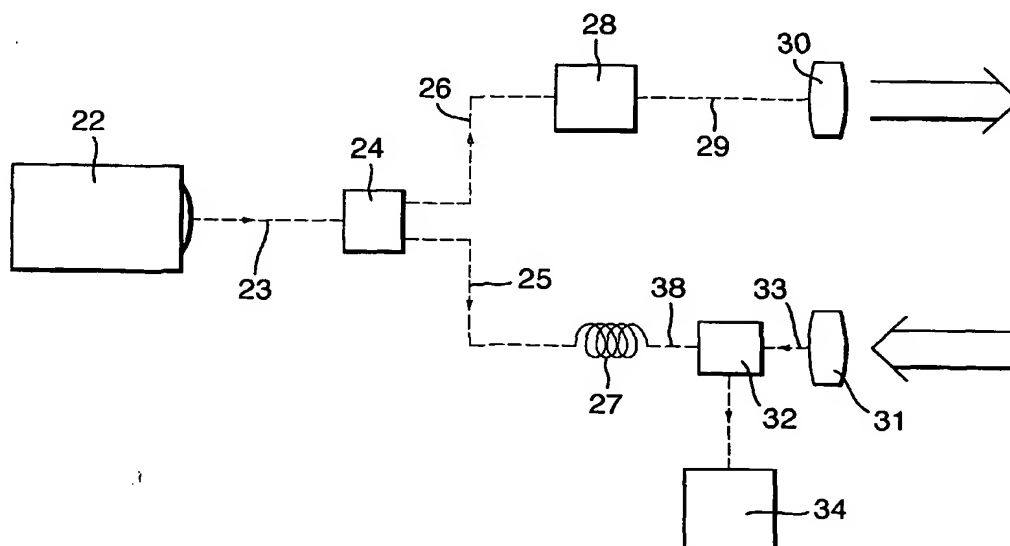
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[Continued on next page]

(54) Title: TRANSMISSION SYSTEM



(57) Abstract: An optical transmission system includes an optical source such as a laser having an optical output, this optical output being modulated such that it has periods of operation having a first set of characteristics interspersed with periods of operation having a second set of characteristics. The output is then split into at least two signals, and one of the signals delayed with respect to the other signal before the two are mixed, such that a portion of the modulated optical output having the first set of characteristics in one of the signals corresponds with a portion of the modulated optical output having the second set of characteristics of another of the signals. This allows a single optical source to provide to a receiver a local oscillator signal simultaneously with a data carrying signal. The system is particularly suitable for lidar applications, including gas sensing, but also has utility in data communications systems.

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C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	US 5 170 218 A (KEENE WAYNE H) 8 December 1992 (1992-12-08)	1,2,9, 12, 17-22, 24,25
Y	column 1, line 54 -column 2, line 52; figures 1,4	3-8,10, 11,13-16
Y	US 5 030 824 A (BABBITT WILLIAM R) 9 July 1991 (1991-07-09) column 3, line 20 -column 4, line 19; figures 1,2	3-8,10, 11,13-16
<input type="checkbox"/> Further documents are listed in the continuation of box C. <input checked="" type="checkbox"/> Patent family members are listed in annex.		
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Information on patent family members

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